NPDES Permit No. GU0020362

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et seq.; the "Act"),

Guam Shipyard
P.O. Box 13010
Santa Rita, Guam 96915-3010

is authorized to discharge non-contact cooling water, wash water, and storm water from Discharge Serial Numbers 001 through 010 to receiving waters named Apra Harbor at:

Latitude:	13° 26’ 30” N to 13° 26’ 39” N
Longitude:	144° 39’ 24” E

in accordance with effluent limitations, monitoring requirements and in the attached 14 pages of EPA Region 9 “Standard Federal NPDES Permit Conditions," dated May 10, 1990.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire at midnight, _____.

Signed this _____ day of _____.

For the Regional Administrator,

Alexis Strauss,
Director
Water Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date, and lasting until the permit's expiration date, the permittee is authorized to discharge unit-in-dock wash water and storm water from Outfalls Serial Numbers 001 through 010. No cooling water shall be allowed to be discharged at these outfalls. In the event of a discharge, such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	**DISCHARGE LIMITATIONS**			**MONITORING REQUIREMENTS**		**NOTES**
	UNITS	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE	(a)(b)
Flow	MGD	--	--	Monthly	Estimate	
Temperature	^{o}C	--	--	Monthly	Discrete	(c)
pH	S.U.	7.0-9.0		Monthly	Discrete	(d)
Total Suspended Solids	mg/l	30	60	Monthly	Discrete	(e)
Turbidity	NTU	--	--	Monthly	Discrete	(f)
Coliform Bacteria	#/100 ml	70	400	Monthly	Discrete	
Oil and Grease	mg/l	10	15	Monthly	Discrete	
Orthophosphate (PO_4-P)	mg/l	0.05	--	Monthly	Discrete	
Nitrate (NO_3-N)	mg/l	0.20	--	Monthly	Discrete	
Chromium (VI)	ug/l	--	1,100	Monthly	Discrete	
Copper	ug/l	3.1	4.8	Monthly	Discrete	
Lead	ug/l	8.1	210	Monthly	Discrete	
Zinc	ug/l	86	95	Monthly	Discrete	
Tributyltin	ug/l	0.010	0.356	Monthly	Discrete	

2. During the period beginning with the permit's effective date, and lasting until the permit's expiration date, the permittee is authorized to discharge non-contact cooling water from Outfall Serial Number 011. In the event of a discharge, such discharge shall be limited and monitored by the permittee as specified below.

EFFLUENT CHARACTERISTIC		**DISCHARGE LIMITATIONS**		**MONITORING REQUIREMENTS**		**NOTES**
	UNITS	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE	(a) (g)
Flow	MGD	--	--	Monthly	Estimate	
Temperature	^{o}C	--	--	Monthly	Discrete	(c)
pH	S.U.	7.0-9.0		Monthly	Discrete	(d)
Total Suspended Solids	mg/l	30	60	Monthly	Discrete	(e)
Turbidity	NTU	--	--	Monthly	Discrete	(f)
Coliform Bacteria	#/100 ml	70	400	Monthly	Discrete	
Oil and Grease	mg/l	10	15	Monthly	Discrete	
Orthophosphate (PO_4-P)	mg/l	0.05	--	Monthly	Discrete	
Nitrate (NO_3-N)	mg/l	0.20	--	Monthly	Discrete	

FOOTNOTES:

(a) The monitoring frequency for each parameter, except flow, may be reduced from monthly to quarterly or semi-annually, upon prior approval from Guam EPA and USEPA, should the permittee achieve effluent concentrations below the corresponding limitations in four (4) consecutive months of monitoring. The monitoring frequency for each parameter shall remain monthly if monitoring data show effluent concentrations are greater than or equal to the corresponding limitations.

(b) Discrete samples of wash water and storm water shall be taken during each monitoring event. Storm water samples shall be collected from discharge resulting from a storm event that is greater than 0.1 inches and at least 24 hours from the previously measurable (i.e. greater than 0.1 inch rainfall) storm event. These samples shall be taken during the first thirty minutes of discharge. Wash water samples shall be collected at the outset of dock rinsing.

(c) Both the effluent and ambient water shall be sampled and reported. Variations of more than 1.0 degree centigrade from ambient conditions shall not be allowed unless due to natural conditions.

(d) Both the effluent and ambient water shall be sampled and reported. Variations of more than 0.5 S.U. from ambient conditions shall not be allowed unless due to natural conditions.

(e) Both the effluent and ambient water shall be sampled and reported. Variations of more than 10% from ambient conditions shall not be allowed unless due to natural conditions.

(f) Both the effluent and ambient water shall be sampled and reported. Variations of more than 1.0 NTU from ambient conditions shall not be allowed unless due to natural conditions.

(g) Discrete samples of non-contact cooling water shall be taken during each monitoring event.

B. DISCHARGE SPECIFICATIONS AND PROHIBITIONS

1. There shall be no discharge from Outfall Serial Numbers 001 to 010 except for unit-in-dock wash water and storm water. No discharge shall occur except wash water immediately prior to ship undocking, storm water runoff from precipitation events, and overflow during docking.

2. There shall be no discharge from Outfall Serial Number 011 except non-contact cooling water.

3. The permittee shall not discharge radioactive materials from the floating drydock or unit-in-dock.

4. The permittee shall not discharge sanitary wastes from the floating drydock or unit-in-dock. All sanitary wastes shall be pumped to the sanitary sewer system. Sewage from the unit-in-dock shall not be discharged except through a properly functioning, Coast Guard-approved marine sanitation device.

5. The permittee shall not discharge trash and debris from the floating drydock or unit-in-dock.

6. The permittee shall not discharge any oil or petroleum products from the floating drydock or unit-in-dock, which (a) are detectable as a visible film, or sheen, or results in discoloration of the surface with a corresponding oil or petroleum product odor; (b) cause damage to fish, invertebrates, or objectionable degradation of drinking water quality; or (c) form an oil deposit on the shores or bottom of receiving body of water.

7. The permitted discharge shall be free from substances, conditions or combinations thereof attributable to domestic, commercial and industrial discharges or agricultural, construction and land use practices or other human activities that:

   (a) cause visible floating materials, debris, oil, grease, scum, foam, or other floating matter which degrades water quality or use;
   (b) produce visible turbidity, settle to form deposits or otherwise adversely affect aquatic life;

   (c) produce objectionable color, odor, or taste, directly or by chemical or biological action;

   (d) injure or are toxic to humans, animals, plants, and aquatic life; and,

   (e) induce the growth of undesirable aquatic life.

8. The permittee shall not discharge spent abrasive, rust, scale, and paint particles (hereafter collectively referred as spent abrasive) from the floating drydock or unit-in-dock.

9. The permittee shall not discharge bilge or ballast water from the floating drydock or unit-in-dock.

10. The use of cooling water additives is prohibited.

C. EFFLUENT TOXICITY TESTING REQUIREMENTS

1. Test Species and Methods

The permittee shall conduct semi-annual toxicity tests on 24-hour composite samples of wash water and storm water from Outfall Serial Numbers 001 through 010 with the purple sea urchin, *Strongylocentrotus purpuratus*. The presence of chronic toxicity shall be estimated as specified in *Hawaiian Collector Urchin, Trypneustes gratilla (hawa'e) Fertilization Test Method*.

2. Definition of Chronic Toxicity

Chronic toxicity measures a sublethal effect (e.g., reduced growth) to experimental test organisms exposed to an effluent compared to that of control organisms. The no observed effect concentration (NOEC) is the highest effluent concentration to which organisms are exposed in a chronic test that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significantly different from the controls). Test results shall be reported in TUc, where TUc = 100/NOEC. Chronic toxicity for *Trypneustes gratilla* is defined by an exceedance of an average daily chronic toxicity discharge value of 94 TUc.

3. Positive Test Procedures

If any toxicity test results in less than 90% survival in the test organism, the permittee shall conduct follow-up toxicity tests during each of the next four quarters. If any of these tests results in less than 90% survival in the test organism, the permittee shall prepare a toxicity identification and reduction evaluation workplan. The workplan shall include the following components: (1) identification of potential causes of toxicity, (2) description of actions the permittee has taken or will take to mitigate impacts of the discharge, correct the noncompliance, or prevent the recurrence of toxicity; and (3) schedule under which these actions will be implemented. The permittee shall submit the workplan to GEPA and USEPA for approval within 90 days of the positive test, and, once approved, implement the workplan in full. If toxicity is not detected in any of the four quarterly tests, the permittee may return to the normal toxicity testing frequency required in this permit.

4. Permit Reopener

Should any of the monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursion above a water quality criterion, the permit may be reopened for the imposition of water quality based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR Parts 122 and 124, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to effluent toxicity.

5. Elimination of Toxicity Testing Requirement

The toxicity testing requirements may be eliminated for the remainder of the permit life, upon approval by GEPA and USEPA, should four consecutive semi-annual tests show that the effluent is free from toxicity.

D. REPORTING REQUIREMENTS

1. Reporting of Monitoring Results

Monitoring results obtained during the previous 3 months shall be summarized and submitted on forms supplied by the Regional Administrator, to the extent that the information reported may be entered. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this permit. Unless otherwise specified, discharge flows shall be reported in terms of the average flow over each 30-day period and the maximum daily flow within that 30-day period.

Unless otherwise specified, discharge flows shall be reported in terms of the average flow over each monthly period and the maximum daily flow over that monthly period. If there is no discharge during the month, the reporting form shall be marked "No Discharge" and submitted in accordance with this section. Monitoring reports shall include a log of dockings and undockings during the previous quarter, including the dates and times of each. Monitoring reports shall be postmarked no later than the 28th day of the month following the completed reporting period, i.e. January 28, April 28, July 28, and October 28. If monitoring results have not yet been obtained, the permittee shall submit a letter notifying USEPA of the delay and requesting an extension. The first report is due 90 days after the effective date of this permit. Duplicate signed copies of these, and all other reports required herein, shall be submitted to Guam EPA and USEPA at the following addresses:

Administrator
Guam E.P.A.
P.O. Box 22349 GMF
Barrigada, Guam 96921
(671) 475-1660/1661

Regional Administrator
U.S. Environmental Protection Agency
Region IX., Attn:CMD-5
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3769

2. Test Procedures

a. All monitoring, sample preservation, and analyses shall be performed as described in the most recent edition of 40 CFR Part 136.3, unless otherwise specified in the permit. For effluent analyses, the Permittee shall use an approved test procedure with a Method Detection Limit (MDL) that is lower than the effluent limitations (or lower than the water quality standards applicable to the receiving water, listed in A.A.C. Title 18, Chapter 11, Article 1 Appendices A and B, for those parameters where monitoring is required but no limits have been set). If the MDL is higher than the effluent limitations or criteria concentrations, then the Permittee shall use the approved test procedure with the lowest MDL. In accordance with 40 CFR 122.45(c), effluent analyses for metals shall measure "total recoverable metal."

b. For the purposes of reporting, the Permittee shall use the reporting threshold equivalent to the laboratory's Method Detection Limit (MDL). As such, the

Permittee must use a standard calibration where the lowest standard point is equal to or less than the concentration of the practical quantitation level (PQL), or in the absence of a PQL, the minimum level (ML).

For analytical results between the MDL and the PQL/ML, the Permittee shall report NODI (Q) on the Discharge Monitoring Report (DMR). In an attachment to the DMR, the Permittee shall include the

following information: the analytical result obtained, the sigma value/standard deviation (determined by the laboratory during the MDL study) and the laboratory MDL and ML for the parameter.

Analytical results below the laboratory's MDL shall be reported as NODI (B). For such parameters, the Permittee shall report in an attachment to the DMR the laboratory MDL, the ML and the sigma value/standard deviation (determined by the laboratory during the MDL study.)

3. Monitoring and Records

Records of monitoring information shall include:

a. The date, exact location, and time of sampling or measurements performed, and preservatives used;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used;

f. The published and laboratory Method Detection Limit of each method used;

g. The sigma value determined by the laboratory during the MDL Study for analytical results between the laboratory MDL and the ML;

h. Any comments, case narrative or summary of results produced by the laboratory. These should identify and discuss QA/QC analyses performed concurrently during sample analyses and should specify whether they met project and 40 CFR Part 136 requirements. The summary of results must include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, holding times, and preservation;

i. A summary of data interpretation and any corrective action taken by the permittee; and

j. The effluent limitations for analytes/compound being analyzed.

4. Twenty-Four Hour Reporting of Noncompliance

The permittee shall report any noncompliance, which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances to the EPA Regional Administrator and Guam EPA.

If the permittee is unsuccessful in contacting the person above, he/she shall report by 9 a.m. on the first business day following the noncompliance. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and,

if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

5. Monitoring Modification

Monitoring, analytical, and reporting requirements may be modified by the EPA Regional Administrator upon due notice.

E. STORM WATER POLLUTION PREVENTION PLAN

The permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that is consistent with Sector R (Ship and Boat Building and Repairing Yards) of the NPDES Storm Water Multi-Sector General Permit for Industrial Activities (Federal Register, Vol. 60, No. 189, Friday, September 29, 1995). The SWPPP shall include the following elements: (1) pollution prevention team, (2) description of potential pollutant sources, (3) measures and controls, (4) employee training and visual inspections, and (5) reporting provisions. The following sections describe each of these SWPPP components.

1. Pollution Prevention Team

The permittee shall identify a specific individual or individuals within the facility organization as members of a storm water pollution prevention team. The pollution prevention team will be responsible for developing the SWPPP and assisting the facility or plant manager in its implementation, maintenance, and revision.

2. Description of Potential Pollutant Sources

The permittee shall identify all activities and materials, which may be potential pollutant sources. At a minimum, this analysis shall include:

a. preparation of a site map indicating the locations of outfalls, existing structural control measure to reduce pollutants in storm water runoff, where significant materials are exposed to precipitation, and where major spills or leaks have occurred;
b. identification of the types of pollutants which are likely to be present in storm water from the facility, which includes considerations of the toxicity of a chemical; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants;
c. inventory of the types of materials handled at the site that potentially may be exposed to precipitation;
d. list of significant spills and leaks of toxic or hazardous pollutants that occurred at the facility;
e. summary of existing discharge sampling data describing pollutants in storm water discharges from the facility; and,
f. narrative description of potential pollutant sources from the following activities if applicable: loading and unloading operations, outdoor storage activities, outdoor storage activities, outdoor manufacturing or processing activities, significant dust or particulate generating processes, loading/unloading areas, and onsite waste disposal practices.

3. Measures and Controls

The permittee shall develop and implement Best Management Practices (BMPs) to control pollutants entering surface waters, as follows.

The first list contains required BMPs. The permittee shall implement all of these BMPs as part of the SWPPP. The second list contains recommended BMPs. The permittee shall review the list of recommended BMPs and implement as part of the SWPPP where appropriate. If certain recommended BMPs are not practicable, the SWPPP shall describe why they are not, and make necessary alterations to the BMPs to prevent, to the maximum extent practicable, pollutants from entering storm water runoff.

a. Required BMPs

Trash and Debris:

(1) Provide trash containers near work areas in the drydock basin.
(2) Conspicuously post signs prohibiting the dumping of trash and other materials.
(3) Dispose of all collected trash at a sanitary landfill.
(4) Sweep and remove trash and debris from the drydock several times per day and at the end of each workday when facility is in operation.

Spent Abrasive and Paint Overspray

(1) Collect spent abrasive and place it in approved containers for disposal at a sanitary landfill
(2) Cover all scuppers, or other potential means of discharge, during periods when abrasive blasting or other means of paint removal, paint application, or spent abrasive removal operations are being performed.
(3) Properly store spent abrasive in covered areas to prevent contact with storm water.
(4) Scrape and sweep clean the drydock floor of spent abrasive and all other debris to a "broom-clean" state prior to flooding
(5) Provide proper training to employees who are involved in blasting or painting vessels to ensure that they are aware of techniques necessary to minimize airborne releases of grit and paint overspray.

Oil, Grease, and Fuel Spills:

(1) Prevent accidental spills of oil, grease, or fuel from reaching drainage systems and discharging to receiving waters.
(2) Promptly cleanup oil, grease, or fuel spills once they are detected
(3) Have booms or other devices readily available to contain and remove any accidental discharge of oil, grease, or fuels.
(4) Develop procedures for deploying oil containment booms around spills and procedures to clean-up inside the boomed areas
(5) Conduct routine oil sheen inspections at discharge points
(6) Routinely inspect generator units for oil and fuel leaks.
(7) Promptly repair oil and fuel leaks once they are detected
(8) Properly store used oils in clean, sealed, and approved containers and store them in a place that can contain the material in the event of a spill (preferably in a covered shed or warehouse)

(9) Routinely inspect oil/water separators and other storm water management devices such as storm drain catch basins ensure their proper operation.

Paints and Solvents:

(1) Prohibit the use paints containing arsenic, mercury, lead or tributyltin
(2) Mix paints and solvents in designated paint mix areas, which have adequate secondary containment.

Hazardous Waste:

(1) Properly label hazardous waste including used grit blast, paint, oils, brake fluids, anti-freeze, batteries, petroleum products, degreaser, and tool coolants, recycle these products when possible, and dispose of them in a manner consistent within RCRA guidelines.
(2) Dispose of used batteries, oil, paint, scrap metal, unused machinery, and other toxic materials in a manner that is safe, legal, and prevents receiving water contamination.
(3) Post signs on trash bins designating the type of material that is acceptable and/or unacceptable.

b. Recommended BMPs

Spent Abrasive and Paint Overspray

(1) Use a containment system (e.g. Monarflex) during sandblasting and painting operations to prevent the discharge of spent abrasive and paint overspray to the receiving water.Collect, test, store and dispose grit-blasting wastes in accordance with federal hazardous waste management rules (if applicable)
(2) Separate blast materials from paint waste to reuse blast material and lower potential toxicity of spent grit blast
(3) When reuse is not possible on-site, properly dispose of spent blast material according to RCRA guidelines
(4) Consider the use of alternative and less environmentally hazardous blasting media or techniques (i.e. plastic media blasting, water jet stripping, thermal stripping, dry ice pellets, or cryogenic stripping.
(5) Conduct an inventory control study to track the amount of new grit-blasting material brought on-site, and measure, by volume, the amount of used material that is stored on-site, the amount that is sent to the land-fills, the public works department, and other facilities for re-use (i.e. asphalt, or concrete producers)
(6) Avoid grit-blasting ships that are painted with anti-fouling or anti-corrosion agents containing arsenic, mercury, lead, or tributyltin.

Oil, Grease, and Fuel Spills

(1) Ensure that all on-site storage areas shall have secondary containment capacity consisting of a curb, dike, or berm sufficient to contain 10% of the total of material stored or 110% of the largest container (whichever volume is greater)
(2) Ensure that all paved storage areas are free of cracks and gaps and are sufficiently impervious to contain spills.
(3) Do not store fuels and other hydrocarbons on asphalt surfaces

(4) Routinely sweep flooring surrounding generators to keep them free of any spilled oil or fuel
(5) Perform fuel loading in designated containment areas.

Paints and Solvents
(1) Maintain liquid absorbent pads in stock for emergency use.
(2) Treat paint and solvent spills in the same manner that oil spills are treated (i.e. full containment cleanup is complete).

Hazardous Waste
(1) Install weather protection (i.e. roofing and enclosure) for on-site storage areas to prevent direct contact between storm water and chemical and fuel storage containers, machinery, scrap, construction materials and other industrial materials.
(2) Post warning signs in locations where there is a significant risk of environmental damage such as spills or fires.
(3) Install "no dumping" signs where dumping is likely to occur or has occurred in the past;

4. Employee Training and Visual Inspections

The permittee shall develop an employee training program, which emphasizes pollution prevention and BMP implementation. Employees shall understand Spill Prevention Control and Countermeasure Plan procedures and proper hazardous waste identification, handling, and disposal procedures.

The permittee shall conduct weekly visual inspections at the facility to ensure that all aspects of the SWPPP are properly implemented. A checklist including all applicable BMPs shall be completed during the weekly inspections. In case of a spill or storm water contamination event, the permittee shall complete an incident report documenting the time, date, nature of the problem, countermeasures taken, and agencies notified.

5. Reporting Provisions

The permittee shall develop the SWPPP and submit the plan to Guam EPA and USEPA within 90 days of the effective date of this permit. The conditions within the plan shall be an enforceable element of this permit. If the plan is determined by Guam EPA or USEPA to be insufficient or if inspections suggest that the plan is ineffectual, this permit may be reopened for the imposition of site-specific BMPs to be determined by Guam EPA and USEPA.

Within two months of SWPPP submittal, the permittee is required to submit notice of implementation of the plan and a schedule for improvements that cannot be completed within the 2-month time frame. If the plan has been delayed, the permittee shall submit a notice of noncompliance, which provides the justification for the delay and a schedule for plan completion and implementation.

Upon implementation of the SWPPP, the permittee shall submit a report quarterly certifying either compliance or noncompliance with all conditions of the above plan, any problems that occurred that had the potential of adding significant quantities of pollutants to the discharge, steps taken to mitigate those problems, and any new innovative procedures implemented or equipment used to improve the operations during each month.

All submittals shall be sent to Guam EPA and USEPA at the addresses above. The permittee shall retain all BMP records on site, including weekly checklists, and make these records available to Guam EPA and USEPA inspectors upon request.

F. SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

In accordance with 40 CFR §112.3 and §112.7, the permittee shall develop a Spill Prevention Control and Countermeasure Plan.

G. INSPECTION AND ENTRY

The permittee shall allow Guam EPA and USEPA Director, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to perform inspections under authority of Section 10: Inspection and Entry of the "EPA Region 9 Standard Federal NPDES Permit Conditions," dated May 10, 1990, as attached.

H. DEFINITIONS

1. A "discrete" sample means any individual sample collected in less than 15 minutes.

2. The "daily maximum" concentration means the measurement made on any single discrete sample or composite sample.

3. The "daily maximum" discharge means the total discharge by weight during any calendar day.

4. The "monthly average" concentration, other than for fecal coliform bacteria, means the arithmetic mean of measurements made during a calendar monthly period. The "monthly average" concentration for fecal coliform bacteria means the geometric mean of measurements made during a monthly period. The geometric mean is the nth root of the product of n numbers.

5. The "monthly average" discharge means the total discharge by weight during a calendar monthly period divided by the number of days in the period that the facility was discharging. The monthly average discharge shall be determined by the summation of all the measured discharges by weight divided by the number of days during the monthly period when the measurements were made.